REMARKS

In the final Office Action, the Examiner rejects claims 22-28 under 35 U.S.C. § 112, second paragraph, as being indefinite; rejects claims 1-4, 6-12, 14-25 and 27-28 under 35 U.S.C. § 103(a) as being unpatentable over CHAN et al. (U.S. Patent No. 6,910,028) in view of HWANG et al. ("Graphic Algorithms to Identify Defects While Reusing Object-Oriented Software Components"); and rejects claims 5, 13, and 26 under 35 U.S.C. § 103(a) as unpatentable over CHAN et al. in view of HWANG et al. and BAHRAMI (U.S. Patent Application Publication No. 2004/0078777). Applicant respectfully traverses these rejections.[1]

By way of the present amendment, Applicant proposes amending claims 1, 17, and 22 to improve form. No new matter has been added by way of the proposed amendment. Claims 1-28 are pending.

Rejection under 35 U.S.C. § 112, second paragraph

Claims 22-28 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite because the feature "the computer-readable medium" lacks antecedent basis in claim 22. In response, Applicant proposes amending claim 22 to recite "the computer-readable memory device," for which there is antecedent basis. As such, withdrawal of the rejection to claims 22-28 under 35 U.S.C. § 112, second paragraph, is respectfully requested.

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[1] As Applicant's remarks with respect to the Examiner's rejections overcome the rejections, Applicant's silence as to certain assertions by the Examiner in the final Office Action or certain requirements that may be applicable to such assertions (e.g., whether a reference constitutes prior art, reasons for modifying a reference and/or combining references, assertions as to dependent claims, etc.) is not a concession by Applicant that such assertions are accurate or that such requirements have been met, and Applicant reserves the right to dispute these assertions/requirements in the future.

Rejection under 35 U.S.C. § 103 based on CHAN et al. and HWANG et al.

Claims 1-4, 6-12, 14-25, 27, and 28 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over CHAN et al. in view of HWANG et al. Applicant respectfully traverses this rejection.

Claim 1 recites a computer-implemented method of integrating software systems. The method includes identifying, by a processor of the computer, a scope of the integration based on a multi-level top-down approach; identifying, by the processor, faults in business rules that define software in the scope of the integration by applying generic depth-first search (DFS)-based techniques to the business rules; and modifying, by the processor, the business rules based on the identified faults. CHAN et al. and HWANG et al., whether taken alone or in any reasonable combination, do not disclose or suggest this combination of features.

For example, CHAN et al. and HWANG et al. do not disclose or suggest identifying, by a processor, faults in business rules that define software in the scope of the integration of software systems by applying generic depth-first search (DFS)-based techniques to the business rules, as recited in claim 1. The Examiner relies on column 8, lines 54-56 of CHAN et al. and Figs. 6 and 7 and section 4.2 (which describes Fig. 7) of HWANG et al. as allegedly disclosing this feature of claim 1 (final Office Action, pp. 4 and 11). Applicant respectfully disagrees with the Examiner's interpretation of HWANG et al.

At column 8, lines 54-56, CHAN et al. discloses that mechanisms are implemented to identify and resolve conflicts among rules when merging rules. This section of CHAN et al. deals with identifying and resolving conflicts when merging rules

and does not disclose or suggest <u>identifying faults in business rules that define software in the scope of integration of software systems</u>. Therefore, this section of CHAN et al. does not disclose or suggest identifying, by a processor, faults in business rules that define software in the scope of the integration of software systems by applying generic depth-first search (DFS)-based techniques to the business rules, as recited in claim 1.

Fig. 6 of HWANG et al. summarizes the criteria for detecting reuse defect patterns in a given transition directed-graph (TDG). More specifically, Fig. 6 of HWANG et al. discloses detecting reuse defect patterns using a depth-first search (DFS) (section 4.1). Identifying <u>software reuse defect patterns</u> does not correspond to identifying <u>faults in business rules</u>. In fact, HWANG et al. deals with identifying, assessing, and classifying defects introduced by reusing object definitions in application object structures (section 1.2) and has nothing to do with identifying faults in business rules. Therefore, Fig. 6 of HWANG et al. does not disclose or suggest identifying, by a processor, faults in business rules that define software in the scope of the integration of software systems by applying generic depth-first search (DFS)-based techniques to the business rules, as recited in claim 1.

Section 4.2 of HWANG et al. discloses C++ pseudo code for Generic-DFS algorithms. Although this section of HWANG et al. discloses a depth-first search, this section of HWANG et al. does not disclose or suggest applying DFS-based techniques to <u>business rules to identify faults in the business rules</u>. Therefore, this section of HWANG et al. does not disclose or suggest identifying, by a processor, faults in business rules that define software in the scope of the integration of software systems by applying generic depth-first search (DFS)-based techniques to the business rules, as recited in claim 1.

For at least the foregoing reasons, Applicant submits that claim 1 is patentable over CHAN et al. and HWANG et al., whether taken alone or in any reasonable combination.

Claims 2-4 and 6-8 depend from claim 1. Therefore, these claims are patentable over CHAN et al. and HWANG et al., whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 1. Moreover, these claims recite additional features not disclosed or suggested by CHAN et al. and HWANG et al.

For example, claim 2 recites representing the business rules using a transition-directed graph (TDG) representation. The Examiner relies on column 8, lines 54-56 of CHAN et al. and Figs. 4 and 5 and sections 4 and 4.1 of HWANG et al. as allegedly disclosing this feature of claim 2 (final Office Action, pp. 5 and 12). Applicant respectfully disagrees with the Examiner's interpretation of HWANG et al.

As noted above, at column 8, lines 54-56, CHAN et al. discloses that mechanisms are implemented to identify and resolve conflicts among rules when merging rules. While this section of CHAN et al. mentions the word rule, this section of CHAN et al. has nothing to do with representing business rules using a transition-directed graph (TDG) representation, as recited in claim 2.

Fig. 4 of HWANG et al. discloses a TDG where each node represents either an identifier invariant assertion (represented as a bar) or an axiom (represented as a cycle) (section 4.1). While Fig. 4 of HWANG et al. illustrates a TDG, Fig. 4 of HWANG et al. does not disclose or suggest representing business rules using a transition-directed graph (TDG) representation, as recited in claim 2.

Fig. 5 of HWANG et al. illustrates TDG-based definitions for four reuse defects (section 4.1). Fig. 5 of HWANG et al. does not disclose or suggest <u>representing the business rules</u> using a transition-directed graph (TDG) representation, as recited in claim 2.

Section 4 of HWANG et al. discloses that a TDG is used to represent invariant assertions into a directed graph. This section of HWANG et al. does not disclose or suggest <u>representing business rules</u> using a transition-directed graph (TDG) representation, as recited in claim 2. In fact, this section of HWANG et al. does not disclose business rules at all.

Section 4.1 of HWANG et al. discloses that, based on predicate logic expressions, each edge in a given TDG connects two nodes with a direction from one to the other. This section of HWANG et al. does not disclose or suggest <u>representing business rules</u> using a transition-directed graph (TDG) representation, as recited in claim 2. In fact, this section of HWANG et al. does not disclose business rules at all.

For at least these additional reasons, Applicant submits that claim 2 is patentable over CHAN et al. and HWANG et al., whether taken alone or in any reasonable combination.

Independent claims 9, 17, and 22 recite features similar to, yet possibly of different scope than, features recited above with respect to claim 1. Therefore, claims 9, 17, and 22 are patentable over CHAN et al. and HWANG et al., whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 1.

Claims 11, 12, and 14-16 depend from claim 9. Therefore, claims 11, 12, and 14-16 are patentable over CHAN et al. and HWANG et al., whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 9.

Moreover, these claims recite additional features not disclosed or suggested by CHAN et al. and HWANG et al.

For example, claim 10 recites features similar to, yet possibly of different scope than, features recited above with respect to claim 2. Therefore, claim 10 is patentable over CHAN et al. and HWANG et al., whether taken alone or in any reasonable combination, for at least reasons similar to the reasons given above with respect to claim 2.

Claims 18-21 depend from claim 17. Therefore, claims 18-21 are patentable over CHAN et al. and HWANG et al., whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 17. Moreover, these claims recite additional features not disclosed or suggested by CHAN et al. and HWANG et al.

For example, claim 21 recites features similar to, yet possibly of different scope than, features recited above with respect to claim 2. Therefore, claim 21 is patentable over CHAN et al. and HWANG et al., whether taken alone or in any reasonable combination, for at least reasons similar to the reasons given above with respect to claim 2.

Claims 23-25, 27, and 28 depend from claim 22. Therefore, claims 23-25, 27, and 28 are patentable over CHAN et al. and HWANG et al., whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 22. Moreover, these claims recite additional features not disclosed or suggested by CHAN et al. and HWANG et al.

For example, claim 23 recites features similar to, yet possibly of different scope than, features recited above with respect to claim 2. Therefore, claim 23 is patentable over CHAN et al. and HWANG et al., whether taken alone or in any reasonable

combination, for at least reasons similar to the reasons given above with respect to claim 2.

Rejection under 35 U.S.C. § 103 based on CHAN et al., HWANG et al, and BAHRAMI

Claims 5, 13, and 26 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over CHAN et al. in view of HWANG et al. and BAHRAMI. Applicant respectfully traverses this rejection.

Claim 5 depends from claim 4. Without acquiescing in the rejection of claim 5, Applicant submits that the disclosure of BAHRAMI does not remedy the deficiencies in the disclosures of CHAN et al. and HWANG et al. set forth above with respect to claim 4. Therefore, claim 5 is patentable over CHAN et al., HWANG et al., and BAHRAMI, whether taken alone or in any reasonable combination, for at least the reasons set forth above with respect to claim 4.

Claim 13 depends from claim 12. Without acquiescing in the rejection of claim 13, Applicant submits that the disclosure of BAHRAMI does not remedy the deficiencies in the disclosures of CHAN et al. and HWANG et al. set forth above with respect to claim 12. Therefore, claim 13 is patentable over CHAN et al., HWANG et al., and BAHRAMI, whether taken alone or in any reasonable combination, for at least the reasons set forth above with respect to claim 12.

Claim 26 depends from claim 25. Without acquiescing in the rejection of claim 26, Applicant submits that the disclosure of BAHRAMI does not remedy the deficiencies in the disclosures of CHAN et al. and HWANG et al. set forth above with respect to claim 25. Therefore, claim 26 is patentable over CHAN et al., HWANG et al., and

BAHRAMI, whether taken alone or in any reasonable combination, for at least the reasons set forth above with respect to claim 25.

Conclusion

In view of the foregoing amendments and remarks, Applicant respectfully requests withdrawal of the outstanding rejections and the timely allowance of this application.

Applicant respectfully requests that the Examiner enter the proposed amendment because the proposed amendment places the application in better condition for allowance and appeal.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 50-1070 and please credit any excess fees to such deposit account.

Respectfully submitted,

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